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PATENT



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Michael J. Hawthorne et al.

Serial No.: 09/404,826

Art Unit: 2122

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Examiner: Eric B. Kiss

For: METHOD OF TRANSFERRING FILES AND ANALYSIS OF  
TRAIN OPERATIONAL DATA

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
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U.S. Patent and Trademark Office

Sir:

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal. The below signed individual is the Attorney of Record.

This Pre-Appeal Brief Request for Review is being requested because Applicants assert that the §103(a) rejection (see Office Action mailed 11/1/05) of independent Claim 1 under the applied prior art references of Neeson et al. (U.S. Patent No. 5,786,998) in view of Heggestad et al. (U.S. Patent No. 5,533,695) and Kull (U.S. Patent No. 5,978,718) contains clear error. That is, the applied references do not include one or more essential elements needed for a prima facie rejection. Moreover, the Office Action has failed to show proper motivation for stringing together these three disparate references in an attempt to modify Neeson et al. to achieve Applicants' invention.

Claim 1 (the only independent claim) recites (underling cited for emphasis):

Preamble - A method of transferring files between a computer onboard a train and remote base stations, the computer having a data base, the data base including track structure information and location information about multiple remote base stations, the method comprising:

1<sup>st</sup> Paragraph - collecting one or more of event recorder data, train performance data and track data from onboard in files on the on-board computer;

2<sup>nd</sup> Paragraph - determining from the data base the location of the train relative to the track structure and whether the train is within communication range of one of the remote base stations, the determining being made by using location information about the train, information about the track

structure and location information about the multiple remote base stations from the data base stored on the computer onboard the train;

3<sup>rd</sup> Paragraph - establishing from onboard the train a wireless communication with one of the multiple remote base stations determined to be within communication range; and

4<sup>th</sup> Paragraph -determining onboard the train which of the files are new since a last transmission and transferring the new files to one of the multiple remote base stations determined to be within communication range.

Applicants acknowledge that, regarding the method steps of the 1<sup>st</sup> and 4<sup>th</sup> Paragraphs of Applicants' Claim 1, the applied reference of Neeson et al. teaches those steps. Also, Applicants acknowledge, with regard to the 2<sup>nd</sup> Paragraph of Applicants' Claim 1, that Kull teaches an on-board data base including information about railway track routes and location of wayside signal devices, but does not teach communicating with the wayside devices.

### ARGUMENT

Following are examples of the clear errors in the Office Action §103 rejection of the method steps in the 2<sup>nd</sup> and 3<sup>rd</sup> Paragraphs of Applicants' Claim 1.

#### Regarding the Method Step in the 2<sup>nd</sup> Paragraph of Applicants' Claim 1

I. A. Office Action: states on page 2, last line, to page 3, line 2, "Neeson et al. discloses...determining on-board if a remote station is within communication range (see column 5, lines 16-32 and column 7, line 63 through column 8, line 3)".

B. Applicants: assert that (1) the portion of the claim limitation of Applicants' Claim 1 that is at issue here is "determining from the data base on-board...whether the train is within communication range of one of the remote base stations..."; the Office Action failed to include the critical underlined words; (2) column 5, lines 16-32 in Neeson et al. does not explicitly disclose that any determination is made from the on-board data base about whether a remote base station is within communication range; the disclosure cited at column 5, lines 16-32 actually teaches away from such an on-board determination since the on-board processing device (computer) is discouraged from even attempting to "send equipment inventory information to a remote location if the locomotive is not in contact with the ground network of the stations", further suggesting that contact is established or initiated by the wayside stations; and, (3) regarding column 7, line 63 - column 8, line 3, there is no disclosure about any "determination" being made "on-board"; in fact, the front end processor

46 (which is not on-board) tracks the field unit 36 (the train), and one of the base stations 52, 54 maintains radio contact with the train 36. This again strongly suggests that radio contact is initiated and maintained by the front end processor and the base stations and that the train transfers inventory data after the wayside station makes contact with the train. **Thus, Applicants assert that the Office Action has clearly erred in its representation of what Neeson et al. discloses.**

II. A. Office Action: acknowledges (see Office Action, page 3, lines 20-22) that “Neeson et al. fails to explicitly disclose determining on-board the location of the train and the location of the next remote station using location information about the train and the remote stations stored on the computer on-board the train”; however, the Office Action (page 3, lines 7-10) then turns to Heggestad et al., citing column 7, lines 6-20 and column 9, line 15 through column 10, line 25 for support, for a statement that, “the on-board computer, already knowing the exact location of the train, transmits a request for authority to the appropriate nearby wayside unit” (emphasis added).

B. Applicants: assert that the Office Action fails to note that “the OBC (on-board computer) 48 on train 94 is continuously provided with the exact location of train 94 along the track 80” (emphasis added) (see Heggestad et al., column 7, lines 11-14); thus, Applicants suggest that if Heggestad et al.’s on-board computer “already knew the exact location of the train”, as asserted by the Office Action on page 4, lines 6-7, then the OBC would not have to be continuously provided with that information. **Thus, Applicants assert that the Office Action’s stated conclusion about Heggestad et al. is clearly erroneous.**

III. A. Office Action: states (see Office Action, page 3, lines 12-15) that “it would have been obvious to one of ordinary skill in the computer art...to modify the system of Neeson et al. to include such determining the location of the train and the location of the appropriate remote station as per the teachings of Heggestad et al”.

B. Applicants: assert that (1) the Office Action provides no citation in Heggestad et al. or Neeson et al., where either reference discloses “determining from the data base...whether the train is within communication range of one of the remote base stations...” (emphasis added). **Having only the Office Action’s conclusory statement and no cited disclosure, Applicants assert that such a conclusion is clearly erroneous.**

IV. A. Office Action: asserts (page 4, lines 15-18) that a motivation to modify Neeson et al. with Heggstad et al. is to overcome “known deficiencies in the ATCS (Advanced Train Control System) on which Neeson et al. is based”, citing column 2, lines 9-29 of Heggstad et al for support.

B. Applicants: assert that the writings at lines 9-29 do not disclose any “known” deficiencies in the ATCS. Thus, there is no support for the stated motivation. **Thus, the Office Action statement represents clear error and is an attempt at impermissible hindsight reconstruction.**

Regarding the Method Step in the 3<sup>rd</sup> Paragraph of Applicants’ Claim 1

I. A. Office Action: states, on page 3, line 2, that Neeson et al. discloses “initiating from on-board wireless communication between an on-board computer (field unit) and a remote station (base station)”, citing Heggstad et al., column 7, lines 29-47 for support.

B. Applicants: assert that (1) the writing at lines 29-47 does not address, and certainly does not disclose, initiating anything, much less initiating a communication between the on-board computer and a remote station; and (2) while the disclosure at lines 29-47 indicating that the field unit (train) 36 remains in radio contact range of the nearest base station and is “passed off” to the next base station, such a disclosure would more likely lead one of ordinary skill in the art to believe that the base stations were controlling the communication between them and the train and not vice-versa. **Thus, Applicants submit that this Office Action assertion about Neeson et al. is clearly in error.**

II. A. Office Action: states the following conclusions (apparently referring to Neeson, et al.) on page 3, lines 7-18 that (underlining emphasis added) (1) “the locomotive must initiate communication on the base station’s receiving frequency because the base station does not transmit data at this frequency and therefore, cannot initiate such communication”. (2) “Further, if a base station were to initiate communication with a locomotive MCP, then the locomotive must receive, process, and respond to such initiation”; (3) “and further, the MCP must acknowledge such initiating [by the base station] with an appropriate response, i.e., the MCP must carry out its own communication initiating procedures to enable communication to take place with the base station”; and (4) “without providing this basic functionality, the prescribed communication system would not be able to exchange data

between the base station and the locomotive MCP. Communication must be established on both ends for the system to function”.

B. Applicants: assert that (1) regarding A(1) above, the Office Action cites no support in Neeson et al. and is clearly making an impermissible, unsupported conclusory statement; (2) regarding A(2) and A(3) above, the Office Action is, in effect, acknowledging that the initiation of the communication comes from the base station and therefore undermines one of the bases for the Office Action rejection. In essence, the MCP is simply responding to the base station. The Office Action cannot turn such a “response” on its head and call it an “establishment” or a “initiation”; and (3) regarding A(4) above, the disclosure in Neeson et al. (column 5, lines 16-32 and column 7, lines 29-47 and 63-67 through column 8, line 3) suggests to one of ordinary skill in the art that the communication is established and maintained by the remote base station 52, 54. **The conclusory statement in A(1) represents clear error and the remaining statements in A(2)-A(4) represents an acknowledgement that contradicts the rejection, making the rejection a clear error.**

In Summary, Applicants respectfully assert that the Office Action has committed clear error in its statements and conclusions and has not made a prima facie case for an obviousness rejection under §103(a) using Neeson et al. in view of Heggstad et al. and Kull. The clear error is evidenced by a combination of the omission or improper identification of essential elements of the method steps of the 2<sup>nd</sup> and 3<sup>rd</sup> Paragraphs of Applicants’ Claim 1. None of the applied references, either individually or in combination, disclose all elements of those method steps. Therefore, Applicants respectfully request that the Final Office Action be withdrawn and the application be passed to allowance.

  
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